

Notice of Allowability

Application No.

10/650,851

Examiner

Cindy Nguyen

Applicant(s)

ASANO ET AL.

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/30/05.
2. ☒ The allowed claim(s) is/are 4-8 and 18-30.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

This is in response to amendment filed 12/30/05.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel Stanger on 06/21/06.

Claims 18, 22, 29 and 30 had been amended as follows:

At lines 1-4 of claim 18:

18. (Currently amended) A processor-readable storage medium embodying executable code of a storage operation management program ~~executed on a computer~~ for operating and managing replication of a volume inside a storage device or among a plurality of storage devices, the executable program code comprising:

At lines 1-4 of claim 22:

22. (Currently amended) A processor-readable storage medium embodying executable code of a storage operation management program ~~executed on a computer~~ for operating and managing replication of a volume inside a storage device or among a plurality of storage devices,

wherein when executed, the executable program code causes ~~[[the]]~~ a computer to perform a method comprising the steps of:

At lines 1-4 of claim 29:

29. (Currently amended) A processor-readable storage medium embodying executable code of a storage operation management program ~~executed on a computer~~ for operating and managing replication of a volume inside a storage device or among a plurality of storage devices, wherein when executed, the executable program code causes ~~[[the]]~~ a computer to perform a method comprising the steps of:

At lines 1-4 of claim 30:

30. (Currently amended) A processor-readable storage medium embodying executable code of a storage operation management program ~~executed on a computer~~ for operating and managing replication of a volume inside a storage device or among a plurality of storage devices, wherein when executed, the executable program code causes ~~[[the]]~~ a computer to perform a method comprising the steps of:

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: ***

Claims 4-8, 18-30 are allowable over the prior art of record.

The following is an examiner's statement of reasons for allowance: Claims 18, 22, 29 are allowable because the prior art of record or that encountered in searching for the invention, fails

to discloses or suggest a method and a processor-readable storage medium embodying executable code of a storage operation management program for operating and managing replication of a volume inside a storage device or among a plurality of storage devices, the executable program code comprising: creating and selecting said copy destination volume to have said feature of said copy source volume, based on said request for a copy destination volume, based on a prestored relationship between said copy source volume and said information, and base on possible/impossible pairing information indicating that said copy destination volume has a pairing capability of forming a replication pair with said copy source volume to make possible the copying of contents of said copy source volume to said copy destination volume, said pairing information being specified by one of a user and an application, as claimed.

Claim 30 is allowable because the prior art of record or that encountered in searching for the invention, fails to discloses or suggest a processor-readable storage medium embodying executable code of a storage operation management program for operating and managing replication of a volume inside a storage device or among a plurality of storage devices, the executable program code comprising: when it is determined that a storage device exists that has a storage policy of forming a pair with said copy source volume, determining from possible/impossible pairing information in the volume information table whether the storage device has a volume having a pairing capability to make possible the copying thereto of contents of said copy source volume as claimed.


Claims 4-8, 19-21, 23-28 are depend form claims 18 and 22, and are therefore allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gaffin Jeffrey can be reached on 571-272-4160. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.


Cindy Nguyen

June 22, 2006


FRANTZ COBY
PRIMARY EXAMINER